

# Drummond, McCall & Co.

## *Iron and Steel Merchants*

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*Head Offices:*

CANADA LIFE BUILDING  
MONTREAL, QUE.

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86 FRONT ST. EAST  
TORONTO, ONT.

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### STEEL FLOOR PLATES

MADE FROM OPEN HEARTH STEEL





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# STEEL FLOOR PLATES





# American Pressed Steel Floor Plates

Made from Open Hearth Steel

FOR USE IN

Floors and Stairways in Buildings,  
Engine and Boiler Rooms,  
Breweries, Factories, Power Plants, Fire Escapes, Vaults,

CONDUIT COVERS,

Locomotive Runner Boards and Foot Boards,  
Passenger and Freight Cars,  
War Vessels and Merchant Ships,  
Foundry Charging Floors,  
Blast Furnace Stairways and Galleries,  
Gas Producer Platforms and Gasometer Stairways,  
Cellar Doors, Gutter Crossings and Platforms,

and for all purposes where it is desired to have a handsome appearance and to guard against slipping.

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## Steel Floor Plates

save 50% in weight and 30% in cost over cast iron.

WILL NOT CRACK



# American Pressed Steel Floor Plates

Made from Open Hearth Boiler Plate

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THE trend in construction of buildings, ships and similar structures is to avoid the use of cast iron wherever at all possible on account of its unreliability and the excessive weight necessary to be used to secure the desired strength. This fact has made Steel Floor Plates deservedly popular among those upon whom rests the responsibility of designing steel structures in which strength and lightness must be combined.

Cast iron has an average tensile strength per square inch of about 16,500 pounds with practically no elastic limit or ductility, while steel plates have a tensile strength running from 55,000 to 70,000 pounds, with an elastic limit of about 30,000 pounds and a reduction of area or percentage of ductility of 40 to 60 per cent. It will therefore be recognized that there is no comparison between the two materials. As we are prepared to furnish Steel Floor Plates cut to desired sizes and shapes, the cost of fitting is no more than that of other less desirable materials.

The fact that 50 per cent. can be saved in weight and the strength still be increased over other materials is a strong argument in favor of Steel Floor Plates.



It often happens in engine and boiler rooms or places where heavy machinery is handled, a heavy weight dropping breaks a cast iron plate, causing a serious accident and great loss, which would not be the case were steel plates used, as they *won't break*.

The Diamond Pattern has so far been the most popular with builders for all structures except ships, in which the Ribbed Pattern has been most used. The Ribbed Pattern is also largely used for stairway treads. A floor made of either pattern, but especially the Diamond Pattern, presents an extremely handsome appearance equalled by no other material used for the purpose.

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### American Pressed Steel Floor Plates

American Pressed Steel Floor Plates should not be confused with that style of chequer plate, the pattern of which is formed by interlacing ribs, the depressed diamond or pocket formed by these ribs being a very objectionable feature, it being almost impossible to sweep dirt out of these pockets. The diamonds of the American pressed steel plate are raised, forming channels or grooves the whole length of the plate, which enables the floor to be very easily swept. The wearing surface also presented by the diamonds in the American plate is far greater than that of the interlacing ribs of the other plates, which are very light and soon wear off.

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SPECIFY AMERICAN PRESSED STEEL FLOOR PLATES



# DRUMMOND, McCALL & CO., MONTREAL



## Ribbed Pattern

Maximum Sizes we can Furnish

THICKNESS	WIDTH IN INCHES						
	24	36	42	48	56	60	72
1-8	120	120	120				
3-16	140	130	130	130	130	130	120
1-4	170	160	160	160	160	160	120
5-16	190	190	180	180	180	160	120
3-8	190	190	190	180	180	170	120
7-16	190	190	190	180	180	170	100
1-2	190	190	180	180	180	150	100
3-4	170	170	160	150	150	144	96

We can supply all gauges from  $\frac{1}{8}$  in. to 1 in. in thickness and can furnish any size and shape within the above maximums.

### WEIGHTS PER SQUARE FOOT

1-8	9 lbs.	7-16	20 lbs.
3-16	$9\frac{3}{4}$ "	1-2	$22\frac{1}{2}$ "
1-4	$12\frac{1}{4}$ "	5-8	$27\frac{1}{2}$ "
5-16	$14\frac{3}{4}$ "	3-4	33 "
3-8	$17\frac{1}{4}$ "	7-8	38 "

These weights are approximate and may vary according to the size of the plate. Thickness in all cases is measured through the body of the plate.



# DRUMMOND, McCALL & CO., MONTREAL



## Raised Diamond Pattern

Maximum Sizes we can Furnish

THICKNESS	WIDTH IN INCHES					
	24	36	44	50	56	60
1-8	120	120	120			
3-16	160	150	130	130	130	120
1-4	170	160	160	160	160	120
5-16	190	190	180	180	170	120
3-8	190	190	180	180	170	120
7-16	190	190	180	180	170	100
1-2	190	180	180	170	150	96
3-4	170	160	160	140	130	96

We can supply all gauges from  $\frac{1}{8}$  in. to  $\frac{3}{4}$  in. in thickness and can furnish any sizes and shapes within above maximums.

### WEIGHTS PER SQUARE FOOT

1-8	8 lbs.	7-16	19 lbs.
3-16	$8\frac{3}{4}$ "	1-2	$21\frac{1}{2}$ "
1-4	$11\frac{1}{4}$ "	5-8	$26\frac{1}{2}$ "
5-16	$13\frac{3}{4}$ "	3-4	32 "
3-8	$16\frac{1}{4}$ "	7-8	37 "

These weights are approximate and may vary according to the size of the plate. Thickness in all cases is measured through the body of the plate.



# Safe Loads

in Pounds per Square Foot

In order to enable a comparison to be made between Steel Floor Plates and cast iron, so that it can be quickly seen what thickness of Steel Plates to use in place of cast iron, the following table has been prepared by a prominent structural engineer. This table is based upon fibre stresses, as required by strict building laws, a factor of safety of four. A glance will show the vast superiority of Steel Plates over cast iron and will substantiate all our claims for these plates as compared with any other kind of floor.

## Steel Floor Plates

THICKNESS IN INCHES

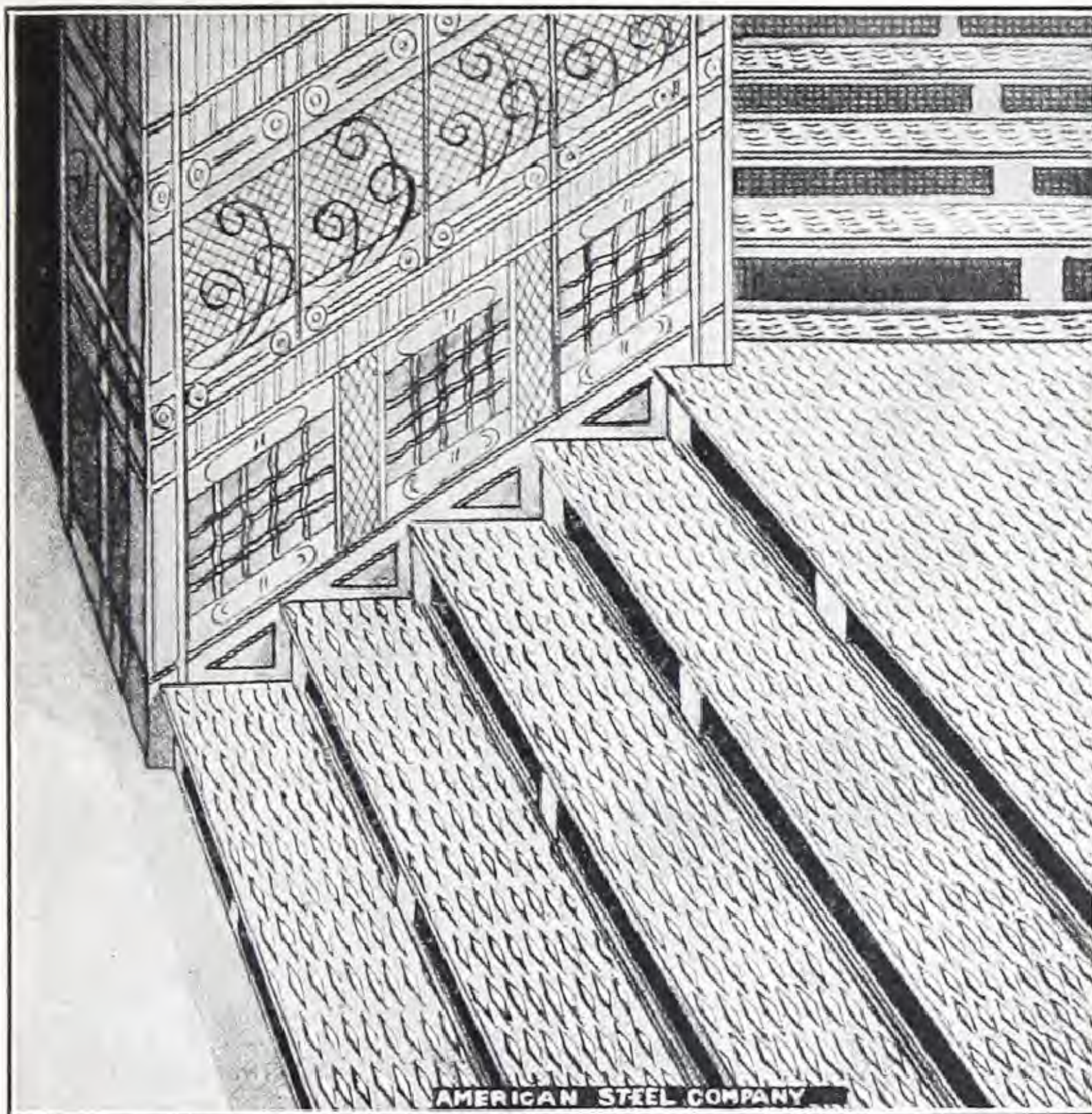
Span in Feet	$\frac{1}{8}$	3-16	$\frac{1}{4}$	5-16	$\frac{3}{8}$	7-16	$\frac{1}{2}$	$\frac{5}{8}$
2 . . . . .	80	182	379	516	748	1021	1345	2100
3 . . . . .	33	77	140	222	318	444	582	918
4 . . . . .	16	40	75	119	176	242	318	506
5 . . . . .	9	22	44	72	107	148	197	315
6 . . . . .		13	28	46	70	97	131	211
7 . . . . .		8	18	30	47	67	91	148
8 . . . . .			11	20	33	47	65	108
9 . . . . .			7	13	22	33	47	80
10 . . . . .				8	16	24	35	60

## Cast Iron Plate

THICKNESS IN INCHES

Span in Feet	$\frac{1}{8}$	3-16	$\frac{1}{4}$	5-16	$\frac{3}{8}$	7-16	$\frac{1}{2}$	$\frac{5}{8}$
2 . . . . .	15	36	79	110	160	221	294	485
3 . . . . .	4	12	25	41	63	88	118	202
4 . . . . .		3	10	17	59	42	58	103
5 . . . . .			2	7	13	20	30	60
6 . . . . .				2	5	8	15	32
7 . . . . .						2	6	17
8 . . . . .								7
9 . . . . .								
10 . . . . .								





## Inside Stairway

American Pressed Steel Floor Plates make a most handsome stairway. Prevent slipping and do not crack or break and are fireproof.



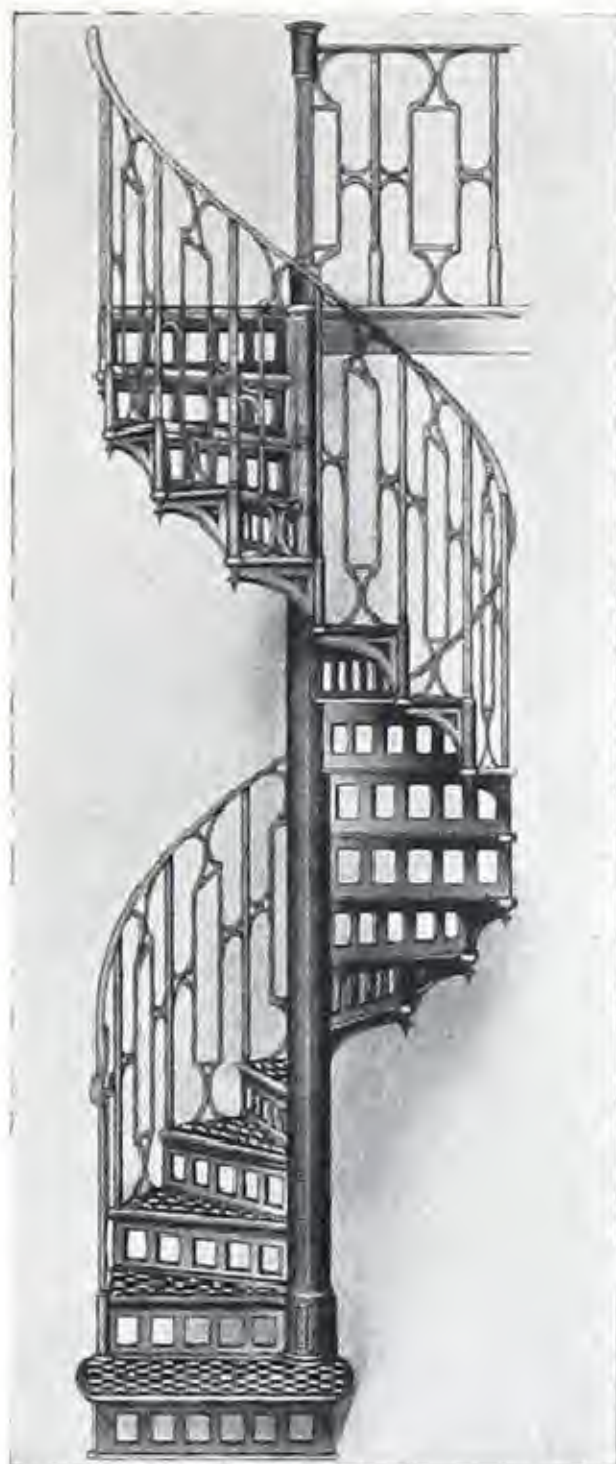


## Outside Stairway

American Pressed Steel Floor Plates give a sure foothold no matter how icy it may be. Nothing could possibly be handsomer.

No matter what weights may be dropped  
on them they will not break.

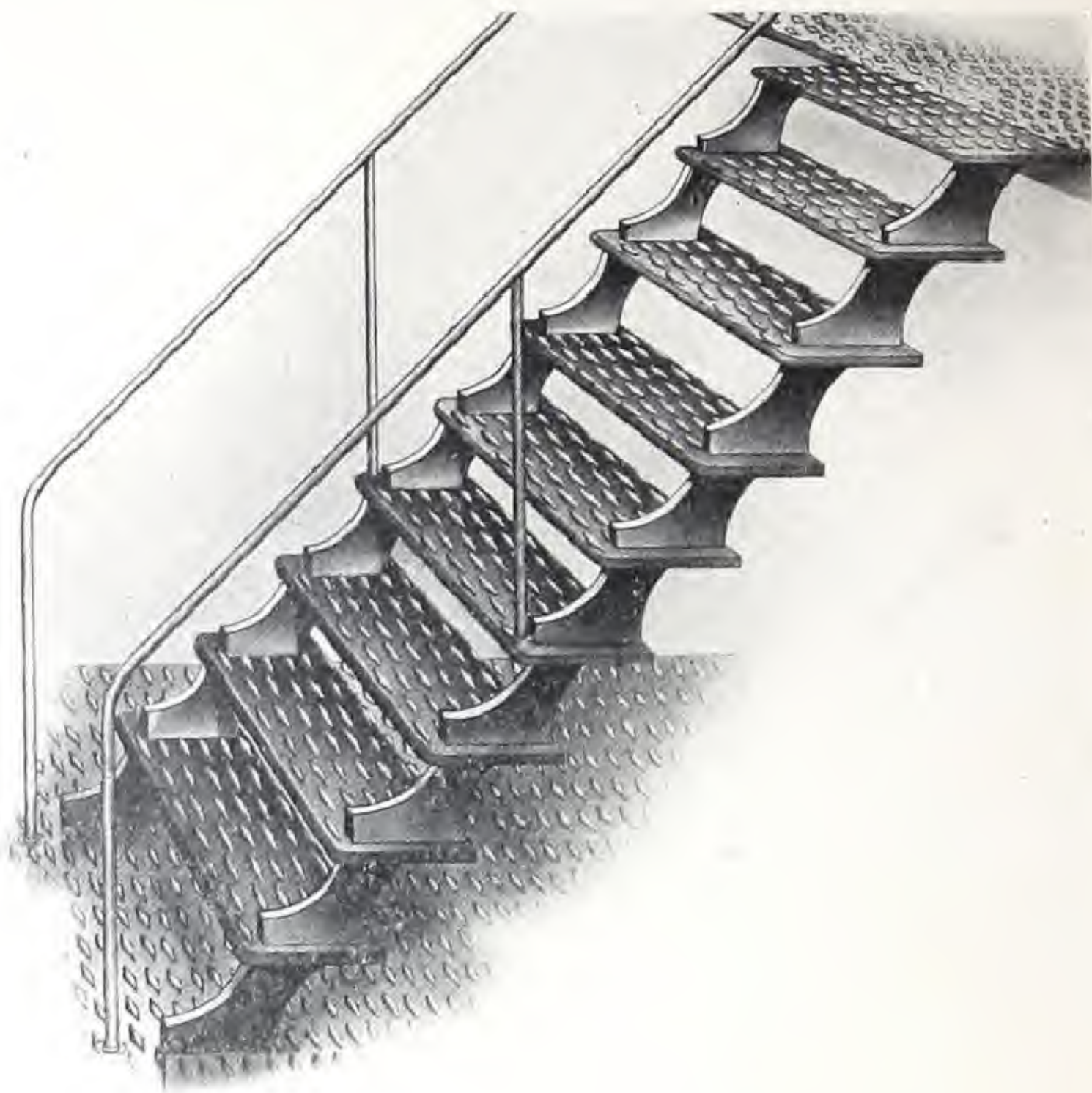




## Spiral Staircase

American Pressed Steel Floor Plates can be supplied cut to  
any size or shape.

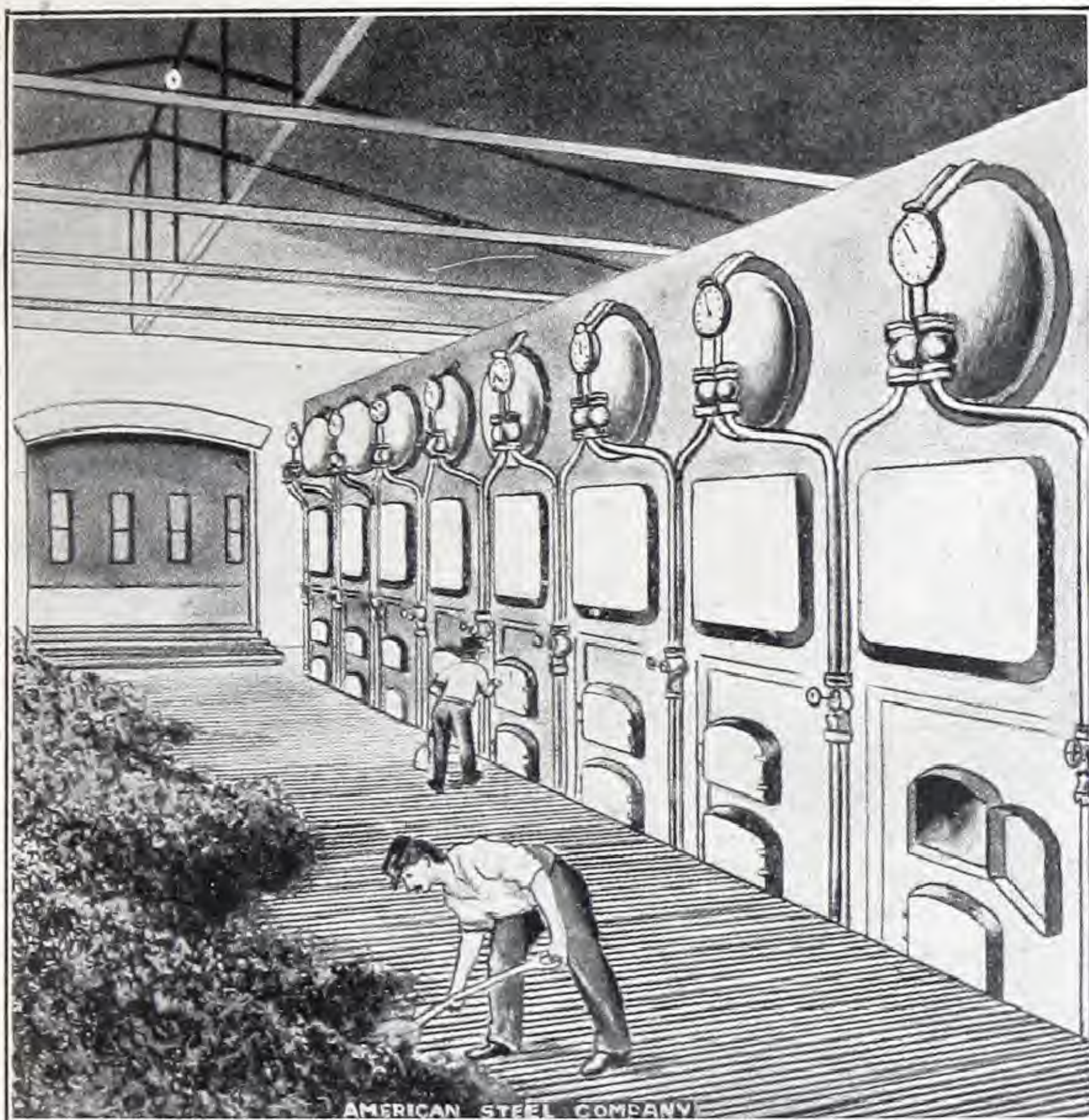




## Engine Stairs

American Pressed Steel Floor Plates are light and strong, afford a sure foothold and prevent accident.

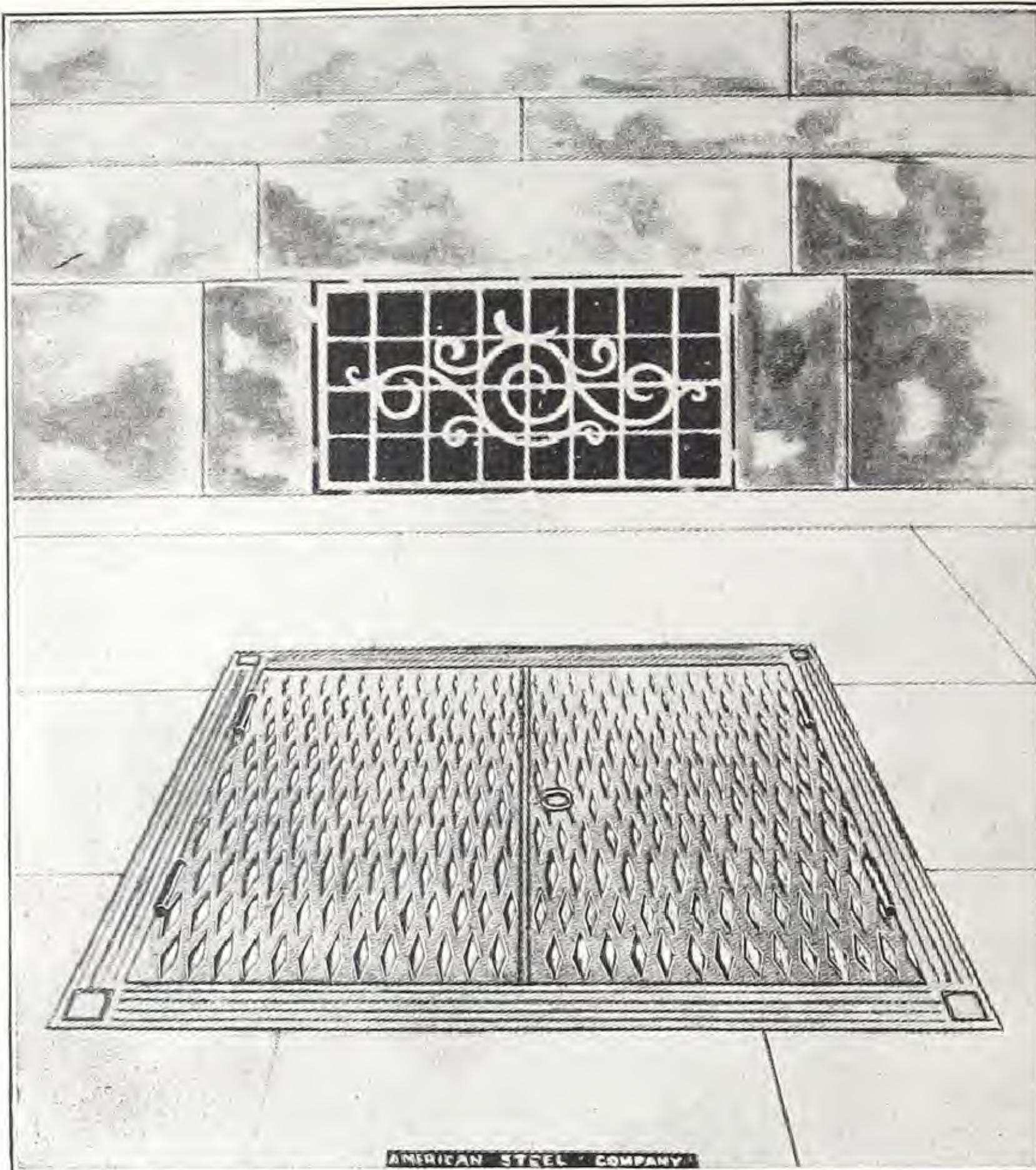




## Fire Room

For this purpose there is no substitute for Steel Floor Plates. They save 50% of dead weight on board yachts, merchant ships and war vessels. They have been used for years by the U. S. Navy Department. They are equally good for land power plants. Shoveling on them is easier than a smooth surface. Can be swept as clean as an ordinary floor.

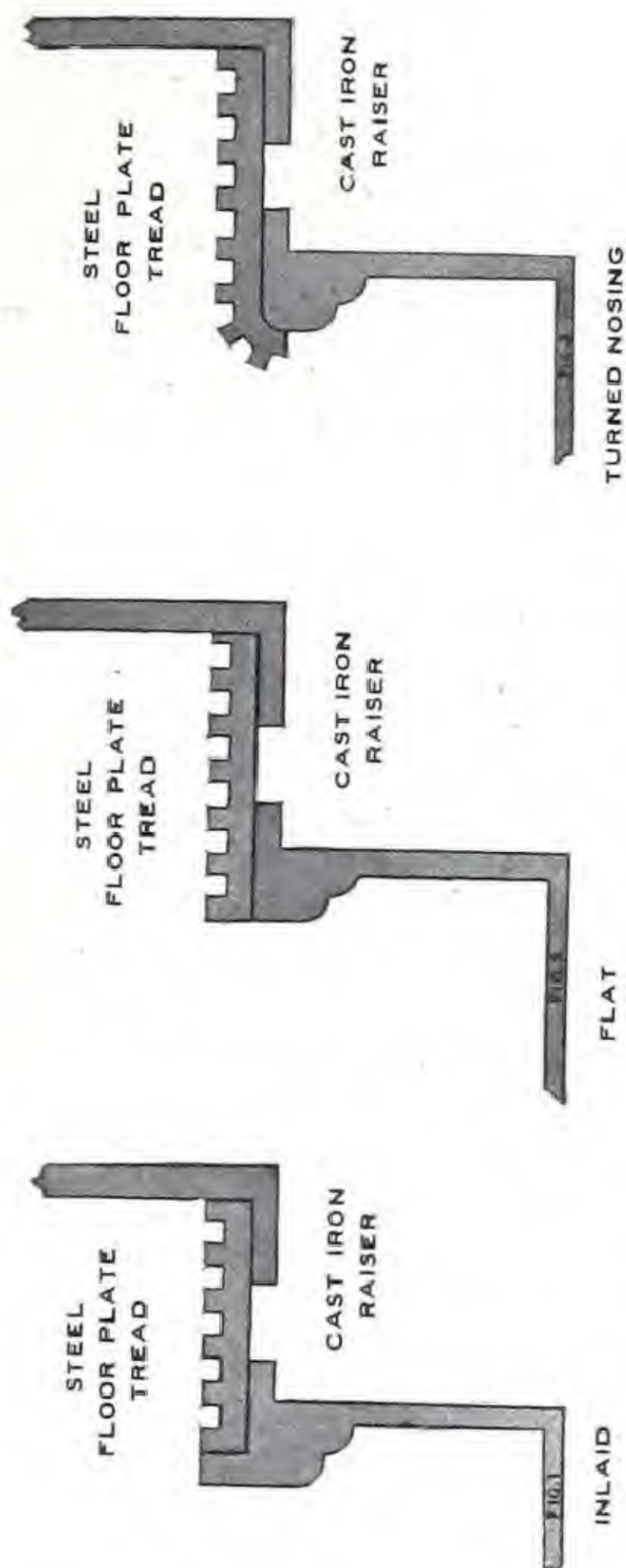




## Cellar Door

No damage suits from injury caused by falls if you have cellar doors made from Steel Floor Plates in your sidewalk.  
Impossible to slip on them.





Suggestions for the use of Steel Floor Plates as Stair Treads  
in place of Cast Iron, Marble, Slate, Etc.

## American Pressed Steel Floor Plates



## Do you Consider Cast Iron Reliable ?

with its low tensile strength, its brittleness and its susceptibility to blow holes you can't see.

### THEN WHY NOT USE

## American Pressed Steel Floor Plates

made from Open Hearth Boiler Steel, have *three times the strength of cast iron* and are homogenous and free from weakening defects.

### WHY NOT SAVE

**50% in Weight and 30% in Cost ?**

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Architects and Engineers will get what they want  
by specifying

**AMERICAN PRESSED STEEL FLOOR PLATES**







